AB012. Prevention of vitamin D deficiency in infants and children in the Russian Federation: modern approaches to correction

Irina Zakharova

Russian Medical Academy of Continuous Professional Education, Moscow, Russia

Background: To develop recommendations and schemes of medicamental prevention and correction of vitamin D deficiency in children in Russia.

Methods: During the "Rodnichok" study, 1,614 children under three years of age were examined from November 2013 till December 2016 in different regions of Russia. Vitamin D status was evaluated based on calcidiol level in serum.

Results: Vitamin D deficiency in autumn-spring period is observed in more than half of Russian children of the first age of life (52.8%). The most vulnerable to vitamin D deficit group is breastfed infants. Formula feeding without cholecalciferol medications supplementation does not satisfy children's need for vitamin D. Hypovitaminosis D should be prevented medicamentally in all children during the first year of life irrespectively of the type of feeding. Cholecalciferol medications supplementation raises level of vitamin D in children significantly and in most cases prevents deficit, but not necessarily leads to reaching 30 ng/mL. 25(OH)D serum level correlates strongly with cholecalciferol medications dosage, at the same time intake of vitamin D medications during the first year of life in dosage 1,000–1,500 IU/day necessarily raises level of vitamin D without risk of overdose.

Conclusions: The unidirectional nature and comparable efficacy in young children in all cities of the study (Arkhangelsk, Moscow, Kazan, Stavropol) were demonstrated, which allows to recommend the proposed scheme of hypovitaminosis D correction in Russia.

Keywords: Vitamin D; hypovitaminosis D; correction